

Notice of Allowability

Application No.

10/659,535

Examiner

Raj K. Jain

Applicant(s)

SURI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/9/03.
2. ☒ The allowed claim(s) is/are 1-14, 16, 18-20, 24-30, renumbered 1-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Gerald Maliszewski (858) 451-9950 on April 9, 2007.

Cancel claims 15, 17 and 21-23.

Amend claims 14, 16, 18-20, 24 and 25 as follows,

14. (Currently amended) A method, comprising: writing a plurality of data frames to the plurality of data segment locations of a payload buffer in accordance with a read pointer's position, where said read pointer is associated with a FIFO buffer having a write pointer and said read pointer, and the FIFO buffer includes a plurality of index values corresponding to said plurality of data segment locations;

reading the plurality of data frames from the plurality of data segment locations; and writing corresponding index values from the plurality of index values to the FIFO buffer in accordance with said write pointer's position;

receiving said plurality of data frames over a first network interface, the plurality of data frames having a source protocol; and

transmitting said plurality of data frames over said second network interface in accordance with a destination protocol and in a different order than said plurality of data frames were received on said first network interface.

16. (Currently amended) The method of claim ~~45~~14, wherein the destination protocol and the source protocol are one of Fibre Channel and packet-over-SONET.

18. (Currently amended) The method of claim ~~45~~14, wherein said plurality of data frames includes a high priority data frame and a low priority data frame, the method further comprises transmitting the high priority data frame over the second network interface before said low priority data frame is transmitted.

19. (Currently amended) The method of claim ~~45~~14, wherein said plurality of data frames includes a plurality of out-of-order data frames, and the method further comprises reordering said plurality of out-of-order data frames before being transmitted over the second network interface.

20. (Currently amended) A networking device, comprising: a payload buffer having a plurality of data segment locations; a FIFO buffer having a write pointer and a read pointer, the FIFO buffer to include a plurality of entries to store a plurality of index values corresponding to said plurality of data segment locations a processor, coupled to the FIFO buffer and the payload buffer, to,

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write a first data frame to a first location of the plurality of data segment locations, the processor to select the first location based on a first index value stored in a current read pointer entry of the plurality of entries, and increment said read pointer to a subsequent entry of the plurality of entries after said writing the first data frame;

read a second data frame from a second location of the plurality of data segment locations, and write a second index value of the second location to a current write pointer entry of the plurality of entries;

wherein said networking device is a network protocol bridge and further comprises, a first network interface to receive said first data frame and second data frame, each having a source protocol; and,

a second network interface to transmit said first data frame and second data frame in accordance with a destination protocol; and,

wherein said processor is further to cause a plurality of data frames to be transmitted over said second network interface in a different order than said plurality of data frames were received on said first network interface.

24. (Currently amended) The networking device of claim 2220, wherein said networking device is to receive a plurality of data frames over the first network interface that includes a high priority data frame and a low priority data frame, and wherein said processor further causes said high priority data frame to be transmitted over the second network interface before said low priority data frame is transmitted.

25. (Currently amended) The networking device of claim 2220, wherein said networking device is to receive a plurality of data frames over the first network interface, said plurality of data frames to include a plurality of out-of-order data frames, and said processor is further to reorder said plurality of out-of-order data frames before being transmitted over the second network interface

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claims 1, 6, 11, 14 and 20 are allowed. The prior art discloses a FIFO buffer having a read and write pointers with a plurality of entries to store appropriate index values corresponding to plurality of data segment locations.

The prior art however fails to disclose or suggest writing a plurality of data frames, which are received over a first network interface according to a source protocol, to select locations of said plurality of data segment locations, wherein each of said select locations is based on a current index value of the plurality of index values that is stored in a current read pointer entry of the plurality of entries, and further transmitting in accordance with a destination protocol the plurality of data frames over a second

network interface in a different order than said plurality of data frames were received over the first network interface

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raj K. Jain

A handwritten signature in black ink, appearing to read "Raj K. Jain", written in a cursive style.

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April 9, 2007